(12) PATENT ABRIDGMENT   (11) Document No **AU-B-52499/96**
(19) AUSTRALIAN PATENT OFFICE   (10) Acceptance No **675626**

(Australian Petty Patent)

(54) Title
VIDEO GAMING MACHINE

International Patent Classification(s)
(51) **A63F 009/22   G06F 017/60   G06F 161/00   G07F 017/32**

(21) Application No. **52499/96**   (22) Application Date **27.05.96**

(30) Priority Data

(31) Number   (32) Date   (33) Country
      PN3442   **08.06.95**   **AU AUSTRALIA**

(43) Publication Date : **06.02.97**

(45) Publication Date of Granted Application **06.02.97**

(71) Applicant(s)
      OLYMPIC AMUSEMENTS PTY. LTD.

(72) Inventor(s)
      THEO TOKLIS

(74) Attorney or Agent
      GRIFFITH HACK , GPO Box 1285K, MELBOURNE VIC 3001

(56) Prior Art Documents
      AU 630587 79361/91 G07F 17/32
      AU 617647 79228/91 G07F 17/32

(57) Claim

1.   A gaming machine having a video display screen, a
computer controller for controlling screen displays thereon
and game play of cards, input control means linked to said
computer controller which are user operable to initiate
game play at a cost to the player and to interact with the
game, and a software program controlling said computer
controller, and responsive to user operations received from
the input control means via the computer controller, said
software being operable during game play to place the
machine in a mode following a win providing game winnings
which will provide an option to stake game winnings to
attempt a selection of one of the suits of cards, and if
said selection results in a correct suit the winnings will
be increased, and if the selected suit is not correct but
the colour of the suit is the same, winnings less than if a
correct suit results will be achieved, and if the selected
suit and the colour of the suit is not the same, the game
winnings are lost.

VIDEO GAMING MACHINE

Field of the Invention

This invention relates to a video gaming machine
and relates particularly to a gaming machine that is
appealing to players.

Description of the prior art

Video gaming (or poker) machines have
considerable popularity through all states of Australia,
with quite substantial amounts of money wagered on these
machines. There is a growing tendency for state
governments to legalise the use of gaming machines by
licensing operators, with concomitant revenue gains through
taxation of monies invested. The licensed operation of
gaming machines is the subject of state legislation and
regulation. This regulation most always dictates a maximum
percentage payout for a gaming machine. For example in
Victoria, a minimum of 87% of monies invested must be
returned as winnings, and manufacturers of aming machines
therefore must design their machines around these
regulatory controls.

Because of the nature of the gaming machine
market there is intense competition between manufacturers
to supply the various existing and new venues. When it
comes to selecting a supplier of gaming machines, the
operator of venues will often pay close attention to which
particular games are the most popular with their patrons.
Therefore, it is in the interest of gaming machine
manufacturers to devise games which are popular with
players, and in that way improve their chances of obtaining
additional sales.

Many various strategies have been tried in the past to make games more enticing to players, including the commonly known double-up feature whereby, if a player wins a particular game, the player can then risk the winnings of

5 that game in a double-or-nothing mode in which they gamble on a subsequent, and often different, game such as whether a red or black card will be the next card drawn. Other techniques adopted in the past have been to provide complexity in the numbering and combinations of indicia

10 which would result in a win, thereby hoping to convince the player that there is a greater chance of winning and to keep their interest in a particular game.

Object and Statement of the Invention

It is an object of the present invention to
15 attempt to provide an improved gaming machine. Therefore, in accordance with a first broad aspect of the present invention there is provided a gaming machine having a video display screen, a computer controller for controlling screen displays thereon and game play of cards, input

20 control means which are user operable to initiate game play at a cost to the player and to interact with the game, and a software program controlling said computer controller, said software being operable during game play to place the machine in a mode following a win providing game winnings

25 which will provide an option to stake game winnings to attempt a selection of one of the suits of cards, and if said selection results in a correct suit the winnings will be increased, and if the selected suit is not correct but the colour of the suit is the same, winnings less than if a

30 correct suit results will be achieved, and if the selected suit and the colour of the suit is not the same, the game winnings are lost.

Most preferably the gaming machine has its software configured so the game is poker.

35 It is further preferred that the software is configured so the winnings for a correct suit result in a

doubling or higher dividend on the game winnings.

Description of Example of Preferred Embodiment

In order that the invention may be more clearly
ascertained, an example of an embodiment will now be
5   described.

The methodology of the embodiment will be
described, and it is to be understood that it is within the
capabilities of the non-inventive worker in the art to
introduce the methodology on any standard microprocessor-
10 based gaming machine by means of appropriate programming.
The embodiment will be described with reference to the card
game of draw poker as will be implemented on a video gaming
machine. It is to be understood that the methodology could
be applied to a number of other card games that might be
15 played on a video gaming machine.

In the preferred embodiment a game of 52 card
draw poker is played. The probability of achieving a
winning hand in a "two-draw" hand of draw poker and the
prize units allocated for each win is given in Table 1. By
20 "second-draw" it is meant that a player receives a first
draw of five cards and can retain a number of cards that
are favourable, then have the discarded cards re-drawn as
the second draw. Table 2 indicates the assumed strategy
adopted by a player after a first draw.

25 From table 1, it can be determined that the
expected return is obtained by multiplying the entries in
the second and third columns and adding the results. In
the present case, the return R = 80.25%.

In order to enhance enjoyment for the player, the
30 draw poker game has a special feature, whereby if the
result of a player of a hand is a full house or some other
determined prize winning combination then a second mode of
operation is entered, in which the player is able to
provide an option to stake the game winnings to attempt a
35 selection of one of the suits of cards, and if that
selection results in a correct suit his winnings will be

increased. If the selected suit is not correct but the colour of the suit is the same as that selected, winnings less than if a correct suit results will be achieved. Further, if the selected suit and the colour of the suit is not the same, the game winnings are then lost.

Each time a player chooses to play the game a new shuffled deck of cards is used.

The player has the choice of either selecting a colour or a suit therefore the return must be calculated separately for each case.

Total number of colours = 2

ie, Red, Black

Probability of choosing the correct colour = 0.5

Total number of suits = 4

ie, Hearts, Clubs, Diamonds, Spades.

Probability of choosing the correct suit = 0.25

Therefore:

Pr (Red)	= 0.5
Pr (Black)	= 0.5
Pr (Heart)	= 0.25
Pr (Club)	= 0.25
Pr (Diamond)	= 0.25
Pr (Spade)	= 0.25

Choosing a Colour

If the player chooses to select a colour, the probability given to each of the outcomes, choosing the correct colour or not, is 0.5. Depending on the outcome the player will either increase his winning such as double his money or lose it all. The return is calculated as follows:

$$\text{Return} = \text{probability of outcome} \times \text{prize} \times 100/1\%$$
$$= 0.5 \times 2 \text{ (or other factor)} \times 100/1\%$$
$$= 100\%$$

Thus the return to the player is 100%

Choosing a Suit

When the player chooses a suit he may win by either, the suit matching or if the suit doesn't match the player may win if the colour of the suit matches.

There are three (3) possible outcomes:-

5   1.   Correct suit (therefore correct colour).

2.   Incorrect suit but correct colour.

3.   Incorrect colour and incorrect suit.

The probabilities and prizes for each of the outcomes are shown in the table below, with the return

10   calculated by multiplying the entries in the second and third columns and then adding the results.

OUTCOME	PROB	PRIZE	RETURN
CORRECT SUIT	0.25	3	75.00%
CORRECT COLOUR ONLY	0.25	1	25.00%
INCORRECT SUIT AND INCORRECT COLOUR	0.5	0	0.00%

The return of the double up feature when choosing a suit is 100%.

In the case of legislation in place in Victoria

20   the minimum payout required of gaming machines is 87%. Hence, that statutory requirement can be met whilst still providing increased enjoyment for players of the game as when this feature of selecting colour suit is added to the basic game payout, the payout exceeds the statutory minimum

25   limit.

As a specific example, if a player has won ten credits from a main game win and enters into the optional special feature, he is offered a choice of what suit a card displayed face down might be. If he chooses hearts and is

30   correct, he can receive an increased prize or credit, such as 30 credits. If the suit was diamonds he would receive his money back as a compensatory payment for being wrong in the suit selection but correct in the colour (both diamonds and hearts are red). If the card facing down contains

spades or clubs (black) the player would loose all his
money as he was wrong in both instances.

Thus, it can be seen that the present invention
provides additional player enhancing features in a video

5   gaming machine which can result in increased pleasure in
play and also increased economic benefit to the
manufacturer of the gaming machine whilst still satisfying
the statutory requirement as to the percentage return of
monies invested.

10   Modifications may be made to the invention as
would be apparent to persons skilled in the video gaming
machine arts. For example, the game played may not be
poker but may be some other game. The particular prizes
offered may be displayed on a cabinet in which the machine

15   is housed. Thus, for any particular machine there may be
one or several different game results which result in
prizes and credits which will lead the player to the
special feature option. The display screen may display
cards on a table or may display cards on a reel arrangement

20   similar to spinning reels. These and other modifications
may be made without departing from the ambit of the
invention, the nature of which is to be determined from the
foregoing description.

Table 1

Hand	Prize	Probability
Royal Straight Flush	500	0.104×10^{-4}
Straight Flush	100	0.924×10^{-4}
Four of a kind	33	0.231×10^{-2}
Full House	10	0.111×10^{-1}
Flush	5	0.135×10^{-1}
Straight	4	0.200×10^{-1}
Three of a kind	3	0.705×10^{-1}
Two pairs	2	0.121

Table 2: First Draw Poker Strategy in Order of Precedence

Hand	Action
Royal Straight Flush	Retain all 5 cards
Straight Flush	Retain all 5 cards
Four of a kind	Retain all 5 cards
Full House	Retain all 5 cards
Flush	Retain all 5 cards
Straight	Retain all 5 cards
Three of a kind	Retain the 3, discard other 2
Two pairs	Retain the 2 pairs, discard other 1
Four to Royal Straight Flush	Retain the 4, discard other 1
Four to Straight Flush	Retain the 4, discard other 1
Any pair	Retain the pair, discard other 3
Four to Straight	Retain the 4, discard other 1
Four to Flush	Retain the 4, discard other 1
Three to Royal Straight Flush	Retain the 3, discard other 2
Three to Straight Flush	Retain the 3, discard other 2
Three to Straight	Retain the 3, discard other 2
Three to Flush	Retain the 3, discard other 2
Any other hand	Discard all 5 cards

THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:

1.   A gaming machine having a video display screen, a
computer controller for controlling screen displays thereon
and game play of cards, input control means linked to said
5   computer controller which are user operable to initiate
game play at a cost to the player and to interact with the
game, and a software program controlling said computer
controller, and responsive to user operations received from
the input control means via the computer controller, said
10   software being operable during game play to place the
machine in a mode following a win providing game winnings
which will provide an option to stake game winnings to
attempt a selection of one of the suits of cards, and if
said selection results in a correct suit the winnings will
15   be increased, and if the selected suit is not correct but
the colour of the suit is the same, winnings less than if a
correct suit results will be achieved, and if the selected
suit and the colour of the suit is not the same, the game
winnings are lost.

20   2.   A gaming machine as claimed in claim 1 wherein
said software is configured so the game is poker.

3.   A gaming machine as claimed in claim 1 or claim 2
wherein said software is configured so the winnings for a
correct suit result in a doubling or higher dividend on the
25   game winnings.

DATED THIS 10TH DAY OF DECEMBER 1996

OLYMPIC AMUSEMENTS PTY LTD

By Its Patent Attorneys:

GRIFFITH HACK

30   Fellows Institute of Patent
Attorneys of Australia

ABSTRACT

A video gaming machine is provided which has a feature that after a win, a player can stake the winnings on a further game where the player attempts to select one of the suits of cards. If this further game results in a win, the winnings are increased. If the further game does not result in a win but the colour of the suit is the same the winnings are increased but less than that for the correct suit. If the suit or the colour of the suit is not correct the game winnings are lost.